

APPLICATION NO.

10/680,903

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EXAMINER

2875
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Please find below and/or attached an Office communication concerning this application or proceeding.

FIRST NAMED INVENTOR

Karen M. Kraus

	Application No.	Applicant(s)	
Office Action Summary	10/680,903	KRAUS ET AL.	Aw/
	Examiner	Art Unit	
	Gunyoung T. Lee	2875	
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply			
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).			
Status			
1) Responsive to communication(s) filed on 2a) This action is FINAL . 2b) This 3) Since this application is in condition for allowan closed in accordance with the practice under E.	action is non-final. nce except for formal matters, pro		merits is
Disposition of Claims			
4) Claim(s) 1-26 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) Claim(s) is/are allowed. 6) Claim(s) 1-26 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or Application Papers 9) The specification is objected to by the Examiner 10) The drawing(s) filed on 21 September 2005 is/a Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correction 11) The oath or declaration is objected to by the Examiner	r election requirement. r. ure: a)⊠ accepted or b)□ objection of the drawing(s) be held in abeyance. Section is required if the drawing(s) is objection is required if the drawing(s) is objection.	e 37 CFR 1.85(a). jected to. See 37 CF	FR 1.121(d).
Priority under 35 U.S.C. § 119	•		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of	s have been received. s have been received in Applicati ity documents have been receive i (PCT Rule 17.2(a)).	on No ed in this National	Stage
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ate)-152)

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DETAILED ACTION

Response to Amendment

- 1. Applicant's amendment filed on September 21, 2005 has been entered:
 - Claims 2, 8 and 9 have been amended;
 - Claims 1-26 are still pending in this application.
- 2. The corrected or substituted drawings (Fig. 4 and Fig. 10A) were received on September 21, 2005. These drawings are approved.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

- 5. Claims 1-3, 6, 10, 11, 13, 14, 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cookingham (US 5,531,181).
- 6. In regards to claims 1-3, 6, 10, 11, 13, 14, 20 and 25, Cookingham discloses an apparatus for illuminating instrument cluster pointers having:
 - A first plate (Fig. 1, 12) having a thickness and defining opposed first and second surfaces;
 - Portions of said plate (Fig. 1, 12) defining an outer peripheral edge and an inner peripheral edge defining a central region (14);
 - A LED light source (Fig. 1, 54) located within said central region (14);
 - Wherein said LED light source (Fig. 2, 54) is offset in said central region (14) with respect to said inner peripheral edge;
 - A support (Fig. 1, 18, 42, 48) coupled to said plate (12) so as to support said plate relative to the instrument panel (28);
 - Wherein, said support (Fig. 1, 18, 42, 48) includes a housing located at the center of the plate (Fig. 1);
 - Wherein, said support (Fig. 1, 18, 42, 48) extends generally perpendicularly with respect to a plane defined by said plate (12).
- 7. In regards to claims 1-3, 6, 10, 11, 13, 14, 20 and 25, Cookingham does not explicitly disclose:

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Indicia formed into one of said first and second surfaces of a gage plate (Fig. 1,
 12) (claims 1, 6);

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- Wherein, said plate (Fig. 1, 12) is a transparent plastic plate (claims 10, 11).

 However, Cookingham acknowledges that it is well known in the art that an instrument cluster includes a face plate bearing indicia for dials and other displays and the face plate generally comprise a transparent polycarbonate plastic substrate (col. 1, lines 13-22). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide indicia into one of the first and second surfaces of a transparent polycarbonate plastic plate to carry effectively the light from a light source to the desired display areas through the indicia for an evenly distributed illumination of the displays.
- 8. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cookingham (US 5,531,181) as applied to claims 1 and 2 above, and further in view of Kalantar (US 6,848,799).
- 9. In regards to claims 4 and 5, Cookingham shows the invention substantially as claimed except for a circular array of the LED light source.
- 10. In regards to the circular array of the LED light source, Kalantar discloses an optical light guide member with a circular array of LED lights (Fig. 8, 24). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the circular array of LEDs of Kalantar for the illumination apparatus of Cookingham

to provide high intensive lights to the transmitting plate for a bright and uniform illumination on the display area.

- 11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cookingham (US 5,531,181) as applied to claim 1 above, and further in view of Williams (US 6,454,422).
- 12. In regards to claim 7, Cookingham shows the invention substantially as claimed except for etched indicia on a face plate.
- 13. In regards to the etched indicia on a face plate, Williams discloses backlit etched indicia formed on a transparent plate (col. 8, lines 12-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the etched indicia of Williams for the illumination apparatus of Cookingham to provide more discernible indicia which pleases the driver especially in a vehicle equipped with a more advanced monitoring technology.
- 14. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cookingham (US 5,531,181) as applied to claim 1 above, and further in view of Hardesty (US 3,131,670).
- 15. In regards to claims 8 and 9, Cookingham shows the invention substantially as claimed except for an internally reflective outer perimeter edge with a beveled shape.
- 16. In regards to the beveled internally reflective outer perimeter edge, Hardesty discloses a illuminated moving hand instrument indicating devices having a pair of

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beveled edges (Fig. 1, 16, 18) each coated with light reflecting material (20, 22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the beveled internally reflective edge of Hardesty for the illumination apparatus of Cookingham to provide recirculation within a transparent plate for a high intensity uniform light flux to the desired areas (indicia).

- 17. Claims 12, 15-18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cookingham (US 5,531,181) as applied to claims 1 and 13 above, and further in view of Matumoto (US 6,302,551).
- 18. In regards to claims 12, 15-18 and 26, Cookingham shows the invention substantially as claimed except for:
 - First and second surfaces of the plate are supported by said support so as to be spaced from any adjacent surfaces of the instrument panel (claim 12);
 - A support extends generally parallel with respect to a plane defined by said plate (claim 15);
 - A housing with a cavity encloses a stepper motor (claims 16, 26);
 - A stepper motor is coupled to a pointer, said pointer being moveably positioned adjacent to said first face (claim 17);
 - Display is at least one selected from the group consisting of a fuel gage, an oil
 pressure gage, an engine temperature gage, a speedometer, a tachometer, an
 audio face plate and a knob (claim 18);

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- 19. In regard to claims 12, 15-18 and 26, Matumoto discloses a meter for vehicle having: the surfaces of a light guide plate (Fig. 11, 60A) supported by a support body (182, 27, 190, 101, 100); a support (182) extends generally parallel with respect to a plane defined by the light guide plate (60A); a stepper motor (Fig. 11, 22 and col. 11, lines 45-48); a pointer (24) coupled to the stepper motor (22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the support, stepper motor and pointer as shown in the meter of Matumoto for the illumination apparatus of Cookingham to provide operation information, such as speed, pressure, engine temperature, to the driver more precisely for a proper response, which will increase the safety of the driver.
- 20. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cookingham (US 5,531,181) as applied to claim 1 above, and further in view of Ohta et al. (US 5,143,434).
- 21. In regards to claim 19, Cookingham shows the invention substantially as claimed except for a housing located centrally with respect to a plate.
- 22. In regards to the centrally located housing, Ohta et al. disclose a meter for an automobile having a centrally located housing (Fig. 1a) with respect to the plate (3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the centrally located housing of Ohta for the illumination apparatus of Cookingham to provide a display unit with less thickness to reduce the entire size of the instrument.

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- 23. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cookingham (US 5,531,181) as applied to claim 1 above, and further in view of Bernhard (US 6,502,976).
- 24. In regards to claims 21 and 22, Cookingham shows the invention substantially as claimed except for an incandescent or florescent bulb as a light source.
- 25. In regards to the light source (incandescent or florescent bulb), Bernhard discloses an illumination apparatus with an illuminator which is selected from the group of incandescent lights, florescent lights, LEDs, fiber optic lights, and chemically illuminating material (col. 9, lines 51-54). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the light source (incandescent or florescent bulb) of Bernhard for the illumination apparatus of Cookingham to provide high quality illumination with a conventional light source for maintenance cost of a display system.
- 26. Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cookingham (US 5,531,181) as applied to claim 1 above, and further in view of Scardilli et al. (US 4,559,582).
- 27. In regards to claim 23, Cookingham shows the invention substantially as claimed except for an electroluminescent material as a light source.
- 28. In regards to the electroluminescent light source, Scardilli et al. disclose an indicator illuminated with electroluminescent lighting (Fig. 1, 21, 26). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use

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the electroluminescent lighting of Scardillie et al. for the illumination apparatus of Cookingham to provide a more convenient and efficient technique for illuminating front face and moveable pointer at light frequencies which do not extend past (below) a predetermined limit.

- 29. Claims 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cookingham (US 5,531,181) and Scardilli et al. (US 4,559,582) as set forth above, and further in view of Sell (US 5,047,761).
- 30. In regards to claim 24, Cookingham and Scardilli et al. show the invention substantially as claimed except for a beveled inner peripheral edge of a face plate. In regards to the beveled inner peripheral edge of a face plate, Sell discloses a pointer illuminated instrument having a beveled inner peripheral edge (Fig. 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the beveled inner edge of Sell for the illumination apparatus of Cookingham modified by Scardillie et al. to maximize the light entrance into the entering face of a light transmitting plate for a high intensity illumination with a uniform distribution on a desired area.

Response to Arguments

31. Applicant's arguments regarding claims 1-3, 6, 10, 11, 13, 14, 20 and 25 filed on September 21, 2005 have been fully considered but they are not persuasive.

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32. In response to applicant's argument that there is no motivation, suggestion, or teaching in Cookingham (US 5,531,181) to provide indicia formed into one of the first and second surface of a gauge plate which is a transparent plastic plate. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See MPEP § 2143 - § 2143.03. In this case, Cookingham clearly discloses that it is a common practice and thus well known knowledge to one of ordinary skill in the art to use an instrument cluster having a face plate bearing indicia for dials and other displays and a face plate comprising a transparent polycarbonate plastic substrate (col. 1, lines 13-23).

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33. Further, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

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Conclusion

34. THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gunyoung T. Lee whose telephone number is (571) 272-8588. The examiner can normally be reached between 7:30 - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached at (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GTL 10/7/2005

Sandra U'Shea Sepervisory Patent Examiner Technology Center 2800